

Date: 8/26/2022

## **Bulletin: Choosing the Correct Altimeter for the G-882 Digital Magnetometer**

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This bulletin is written to inform those customers who purchased the G-882 Digital Magnetometer on the selection of an approved and factory tested Trittech altimeter. **It is recommended that the customers purchase the G-882 and altimeter together from Geometrics to ensure full factory testing and compatibility.**

### **Some background information:**

The Digital version of the G-882 passes along the serial output of the altimeter. The full scale is determined by the altimeter's internal switch configuration. The altimeter firmware version we reference below reports a full scale reading of 99.99 for 100M Altimeters. For the 50 M altimeters it would be 50.00. This is important to know, as other altimeter firmware versions might report 100.00M as 00.00M since the digital board is limited to only xx.xx digits in the serial stream. For this reason, we specify the 232 2P3 FR MNE suffix on the part numbers for both PA200 and PA500 models. The scale and bias are 1.0 and 0.0 respectively regardless of altimeter model (PA200 and PA500).

The non-digital G-882 uses the 0-10V analog output of the altimeter. This output is then digitized by the CM221 counter board. This explains the unique scale and bias factors assigned to each G-882/Altimeter combination and the need to perform difficult field calibrations when altimeters are interchanged.

For customers purchasing Altimeters directly from Trittech, it is important to order the following altimeters to ensure compatibility with the Digital Magnetometer:

### **200KHz**

**Trittech PN S03447 232 2P3 FR MNE.**

**Geometrics PN 190-00014 (ALTIM PA200/20-ALRA 50M/100M/4000M DPTH)**

### **500KHz**

**Trittech PN S04807 232 2P3 FR MNE.**

**Geometrics PN 190-00013 ((ALTIM PA500/6-ALRA 50M/4000M DPTH)**

Note: These will work in both digital and non-digital G-882 magnetometers since both are configured with the 10V analog output voltage as well as the digital output. See below configuration sheets for more information. (Pages 4 and 5).

Additionally, it may be necessary to verify and/or set the switches in the altimeter as follows:

ID	SW1 Dip Switches					
	1	2	3	4	5	6
11	1	1	0	1	0	0

	SW2 Dip Switches						Digital Output Meters Full Scale
	1	2	3	4	5	6	
<b>Settings</b>	0	1	0	0	1	0	PA 500/50.000M
	0	1	0	0	1	0	PA 200/50.000M
	0	0	0	0	0	0	PA 200/99.999M



PA200: Switch 2 configured for 100M.



PA200: Switch 2 configured for 50M



PA500: Switch 2 configured for 30M Analog/50M Digital.

Configuration Sheet for PA200/20

Model No.	PA200/20 Altimeter AL 4000m R/A (ABS Transducer)
Part Number	S03447 232
Construction material	Aluminium
Connector Type	Std Tritech
Transducer Angle	Right-Angled
Depth Rating	4000m
Pressure Tested to	6000psi
Frequency of transmission	200KHz
Angle of Propagation	20Deg
Supply Voltage	21-28VDC
Main Comms	RS232
RS485 Termination (if applicable)	N/A
Serial Range	0.7-100m
Maximum Analogue Range	100m
Analogue Voltage	10V
SW Config	2P3 FR MNE
Mode	Free Run ASCII
No Echo Value	Max No Echo (MNE)
AUX Port Enabled?	N/A
Whip	S00761 1M

\* The PA200, the serial range is 0.7-99.999m.

\*\* The PA200 the max analogue range is 99.999m. (selectable)

Configuration Sheet for PA500/6

Model No.	PA500/6 Altimeter AL 4000m R/A (Tritech)
Part Number	S04807 232
Construction material	Aluminium
Connector Type	Std Tritech
Transducer Angle	Right-Angled
Depth Rating	4000m
Pressure Tested to	6000psi
Frequency of transmission	500KHz
Angle of Propagation	6Deg
Supply Voltage	21-28VDC
Main Comms	RS232
RS485 Termination (if applicable)	N/A
Serial Range	0.3-50m
Maximum Analogue Range	30m
Analogue Voltage	10V
SW Config	2P3 FR MNE
Mode	Free Run ASCII
No Echo Value	Max No Echo (MNE)
AUX Port Enabled?	N/A

\* The PA500, the serial range is 0.3-50.000m